

## ABSTRACT OF THE DISCLOSURE

A differential receiver provides a differential signal of the first and second signals as received serial data. A tracking circuit receives the received serial data and the clock signal to generate a synchronous clock signal based on the clock signal by tracking the received serial data. Then the tracking circuit generates a synchronous serial data synchronized with the synchronous clock signal. An idle detector receives the first signal and the second signal. Then the idle detector detects an idle period of the first and second signals to provide an idle signal. A memory stores the serial data in response to transitions in the synchronous clock signal. The memory provides the stored data in response to transitions in the clock signal. The memory stops storing based on a hold signal. A data protector generates the hold signal to provide the hold signal for the memory.